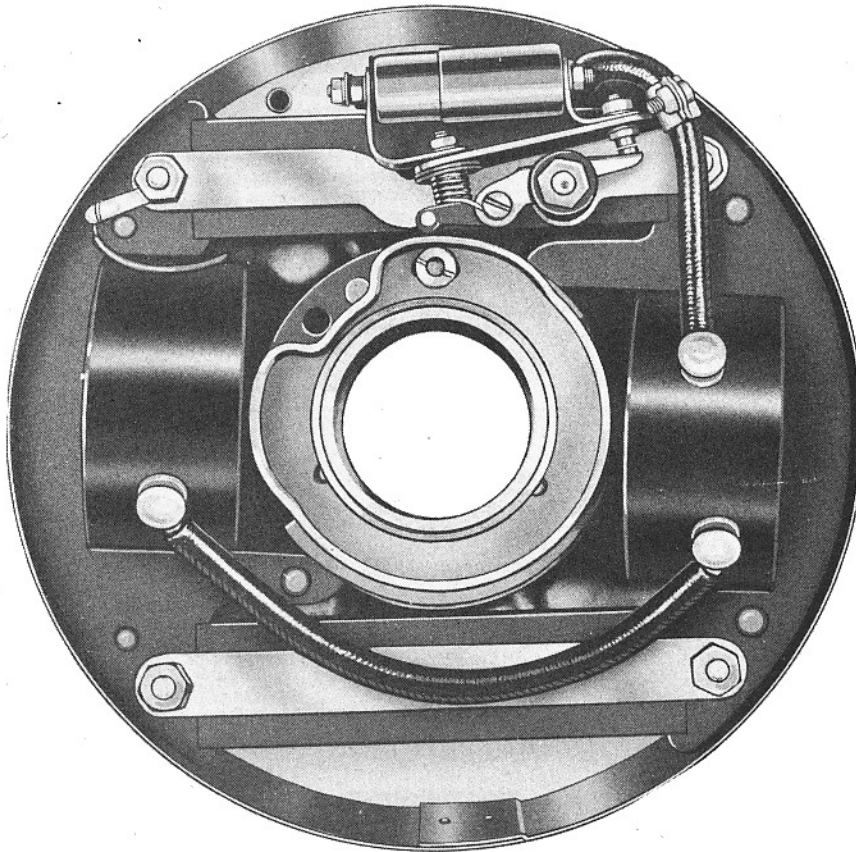


COMPLETE INSTRUCTIONS AND PARTS LIST  
FOR CARE AND OPERATION OF

# TYPE FG WICO MAGNETOS



WICO-BUILT  
IGNITION

*Wico Electric Company*  
WEST SPRINGFIELD, MASSACHUSETTS

**SERVICE INSTRUCTIONS FOR TYPE FG WICO MAGNETOS**

**FOREWORD**

All magnetos are carefully inspected and adjusted at the factory and will give long service without attention of any kind except in cases of accident.

**LUBRICATION**

All series FG magnetos have their own oil reservoir holding sufficient lubricant to give hundreds of hours of service. *At the end of each five hundred hours of operation light cylinder oil may be added.* An oil cup is conveniently located in the back of the magneto. Where the magneto is inaccessible, the oil cup is made accessible by means of an extension. There is no danger of overflowing because an overflow is provided.

**BREAKER POINT AND ROTOR GAP SETTING**

There are two rises on the breaker point cam; the second rise is where the spark occurs. The breaker point should be set to open .008 to .010. When the edge of the armature notches has passed 5/64 beyond the edge of the pole, the breaker points should be just starting to open. To change the position of the cam, loosen lock nut directly under the breaker arm, holding the armature in proper position. Then move cam until points just start to open. Be sure and tighten lock nut.

**GROUND WIRE**

A ground wire, when used, is brought through the back of the magneto to a switch or button on the engine. This is used for grounding the primary to stop the engine.

**COILS**

All coils are built to the well-known Wico standards of excellence and should never require replacement except in case of accident.

**MAGNETS**

The magnetic circuit is permanent and the magnets should never require recharging unless they have been removed from the mag-

neto or unless the magneto has been placed in contact with a destructive electrical current.

**DRIVE PIN**

The magneto armature is driven by a drive pin located in the engine flywheel. This pin is placed in correct relation to the crankshaft keyway for correct timing.

**REMOVAL OF MAGNETO**

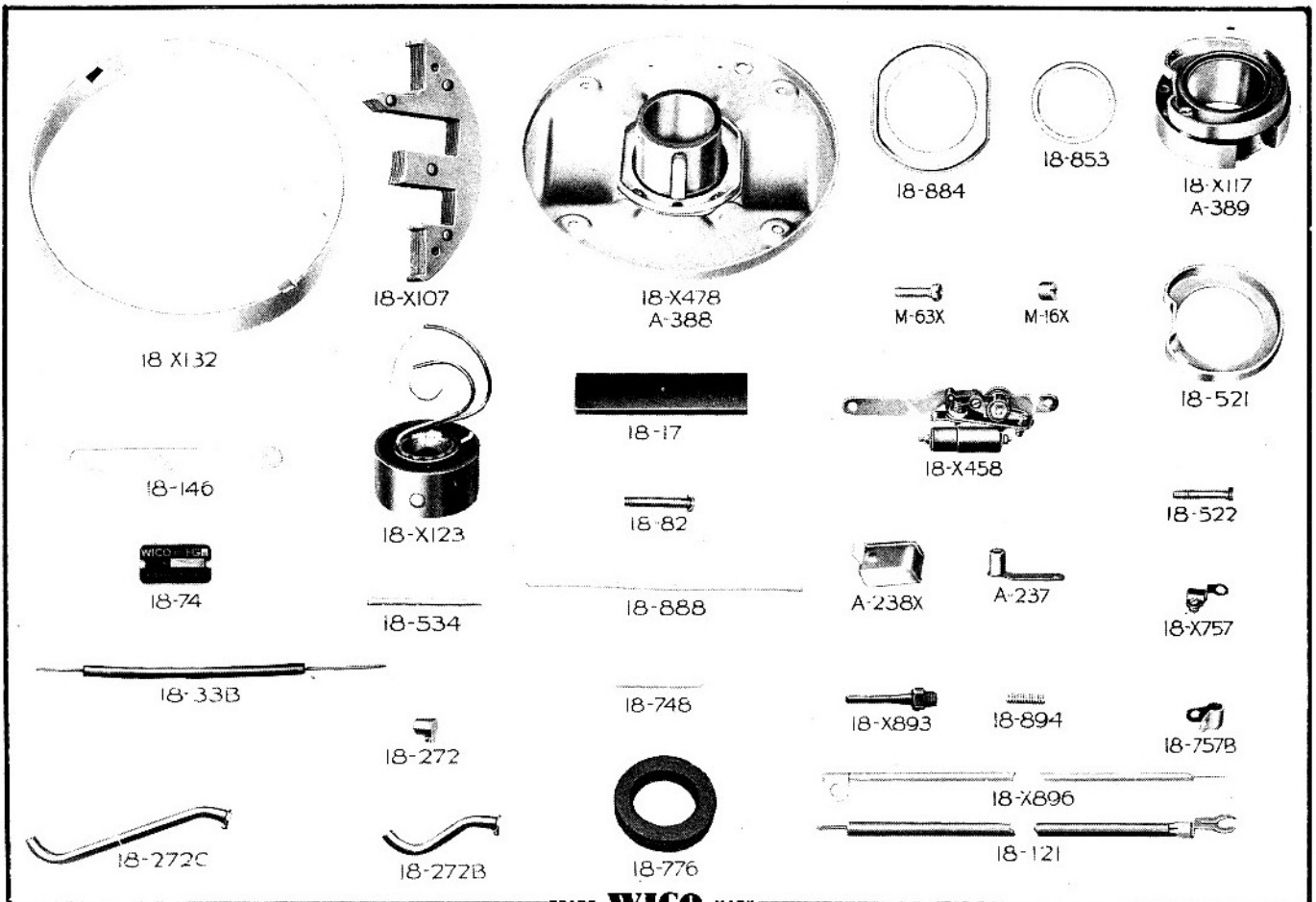
If for any reason the magneto is removed from the engine, it cannot be placed back in position again incorrectly. A dowel pin in the magneto hub locates the magneto for correct timing.

**WARRANTY**

We warrant each piece of apparatus manufactured by us to be free from defects in material and workmanship under normal use and service. Our obligation under this warranty is limited to the furnishing of any part of said apparatus which shall within a period of ninety (90) days after delivery to the original purchaser, be returned either to one of our authorized service stations, or to the factory, transportation charges prepaid, and which, upon examination by one of our authorized representatives, shall disclose to our satisfaction to have been thus defective.

Any magneto or other piece of apparatus shall not be considered to have been under normal use and service if it appears to have been subjected to misuse, abuse, neglect or accident, or if it has been repaired or altered outside of our factory so as, in our judgment, to affect its stability or reliability, or if any part not of Wico manufacture has been substituted for a part of Wico manufacture.

This warranty is in lieu of all other warranties, either expressed or implied; and we do not authorize any person or persons to assume for us any other liability in connection with the sale of our equipment; nor are we responsible for any liability for any damage or injury to any person or part resulting directly or indirectly from design, material, workmanship or installation of any of our apparatus.



# WICO ELECTRIC COMPANY, WEST SPRINGFIELD, MASSACHUSETTS, U. S. A.

WARNING:—When ordering parts for this magneto it is important that you give the serial number of the magneto, located on the back of the magneto, and the make and horsepower of the engine. Give all of this information if possible. We will be unable to fill your order correctly unless this is done.

Part No.	Name	List Price
M-16X	Cam Screw Nut	.05
18-17	Magriet Bar	.65
M-20X	Cam Screw Washer	.05
M-21X	Cam Spacing Washer	.05
M-24X	Condenser Connection Washer	.05
M-25X	Lead Wire Support Screw	.05
M-30X	Condenser Insulating Washer	.05
M-30X	Condenser Connection Screw Insul. Washer	.05
M-32XB	Condenser Connection Screw Bushing	.05
18-33B	Secondary Interlead Group	.30
M-38X	Breaker Arm Insulating Washer	.05
M-52X	Condenser Connection Lock Washer	.05
M-55X	Breaker Point Lock Washer	.05
M-58X	Lead Wire Support Lock Washer	.05
M-58X	Cam Screw Lock Washer	.05
M-60X	Armature Bearing Hub Screw L. W.	.05
M-63X	Armature Bearing Hub Clamp Screw	.05
M-71XA	Condenser Connection Clamp Nut	.05
M-71XA	Lead Wire Support Screw Nut	.05
M-73X	Breaker Point Nut	.05
18-74	Name Plate	.15
M-75X	Breaker Arm Pivot Nut	.05
M-76X	Lead Wire Support Nut	.05
M-76X	Core Screw Nut	.05
18-82A	Core Screw (1-3 16" long)	.05
18-82B	Core Screw (1-7 16" long)	.05
18-82E	Core Screw (1" long, used only on FGA tape wound coil)	.05
18-82F	Core Screw (1-3 16" long, used only on FGA tape wound coil)	.05
18-X107A	Core Group (used on FGB and FGM as right and left hand)	1.95
18-X107A	Core Group (used on FGS and FGA as right hand core)	1.95
18-X107B	Core Group (used on FGS and FGA as left hand core)	1.95
†18-X117	Rotor Group	3.25
*18-121	Lead Wire Group (12" long snap term.)	.30
*18-121B	Lead Wire Group (12" long stripped ends)	.30
18-X123C	Coil Group (used on left hand coil on FGB and right hand coil on FGA)	4.05
18-123D	Coil Group (used on r. h. coil on FGB) Same Coil Groups used on FGM and FGS	4.05
18-X132	Band Group	.70
18-X142A	Breaker Arm Group (clock rotation)	1.25
18-X142B	Breaker Arm Group (anti-clock rotation)	1.25
18-146	Cross Arm	.05
12-182	Name Plate Rivet	.05
A-237	Breaker Box Spring Stud Group (special for Jacobsen)	.60
A-238X	Breaker Box Cover (special for Jacobsen)	.30
IKA-239	Coil Wedge	.05
18-272	Oiler (Short)	.35
18-272B	Oiler (Short Offset)	.35
18-272C	Oiler (Long Offset)	.40
18-X301B	Fixed Contact Group	.55
A-366	Rotor Group (Non-Governing CW) (Special for Lauson)	3.25
A-366A	Rotor Group (Non-Governing CCW)	4.10
A-388	Assembly Plate Group (used on FGB spec. 285)	4.95
A-389	Rotor Group (used on FGB spec. 285)	4.95
A-393	Ground Lead 20"	.70
18-X458A	Breaker Point Unit (anti-clock rotation)	4.45
18-X458B	Breaker Point Unit (clock rotation)	4.45
18-X458C	Breaker Point Unit (clock rotation, with condenser group 18-X235B)	4.45
18-X458D	Breaker Point Unit (anti-clock rotation, used with condenser group 18-X235B)	4.45

Part No.	Name	List Price
18-X458E	Breaker Point Unit (special for Wisconsin, has flat breaker point spring)	4.70
18-X458F	Breaker Point Unit (used on FGA and FGB with governor, clock rotation)	4.45
18-458G	Breaker Point Unit (used on FGA and FGB with governor anti-clock rotation)	4.45
18-X459A	Breaker Point Unit (without condenser, used only on magnetos without governor, clock rotation)	3.10
18-X459B	Breaker Point Unit (without condenser, used only on magnetos without governor, anti-clock rotation)	3.10
18-X459E	Breaker Point Unit (same as 459B, used on magnetos with governor)	2.20
18-X478A	Assembly Plate Group (mounts on 1½" diameter pilot. Has hole for ground connection lead)	4.10
18-X478H	Assembly Plate Group (mounts on 2" diameter pilot. Has hole for ground connection lead)	4.40
18-X478N	Assembly Plate Group (mounts on 2" diameter pilot. Has hole for ground connection lead, also has hole for extra mounting screw below lower mag. gr.)	4.40
18-X502C	Breaker Point Set (clock rotation, includes parts X142, 301, 195, 791)	2.00
18-X502D	Breaker Point Set (anti-clock rotation, includes parts X142B, 301, 195, and 791)	2.10
IKA-520	Name Plate Rivet	.05
18-521A	Breaker Point Cam (used on FGS and FGM)	1.05
18-521C	Breaker Point Cam (clock rotation, used on FGA and FGB)	1.05
18-521D	Breaker Point Cam (anti-clock rotation, used on FGA and FGB)	1.05
18-534A	Primary Interlead Tube (2½" long)	.05
18-534B	Primary Interlead Tube (4½" long)	.05
18-534C	Primary Interlead Tube (5" long)	.05
16-624	Grounding Contact Lug	.05
18-X732A	Breaker Point Bracket Group (cl. rot.)	.65
18-X732B	Breaker Point Bracket Group (anti-cl. rot.)	.65
18-748	Armature Bearing Hub Dust Wick	.15
18-751	Governor Spring Adjusting Screw Nut	.20
18-X752	Governor Arm Group (clock rotation)	1.75
18-X752B	Governor Arm Group (anti-clock rotation)	1.75
18-753B	Governor Spring (2000 R. P. M.)	.25
18-X757	Lead Wire Support Group (anti-cl. rot.)	.15
18-757B	Lead Wire Support (clock rotation)	.05
18-776	Dust Ring (¾")	.15
18-776B	Dust Ring (¼")	.15
18-790	Breaker Arm Spacer	.05
18-791	Breaker Arm Bushing	.05
18-792A	Breaker Arm Spring (clock rotation)	.20
18-792B	Breaker Arm Spring (anti-clock rotation)	.60
18-792D	Breaker Arm Spring (clock rotation on magnetos with governor)	.25
18-792E	Breaker Arm Spring (anti-clock rotation on magnetos with governor)	.60
18-797	Breaker Arm Adjusting Screw	.05
18-853	Armature Bushing Oil Catcher	.15
18-871	Governor Pivot Screw	.15
IFA-873	Assembly Plate Washer	.05
18-874A	Condenser Connection Strip	.05
18-874C	Condenser Connection Strip	.05
18-875B	Condenser Connection Screw	.05
18-878	Condenser Connection Screw Washer	.05
18-884	Oil Ring Cover	.15
18-888	Armature Bearing Oil Wick	.05
18-890	Drive Pin Lock Washer	.05
18-X893E	Drive Pin Group (2-5 16" long) Used on Wisconsin engine, when replacing type F with FGB	1.05

†Because of variation, specify engine make or magneto number.

\*Add \$.05 to list price for each additional ft. of wire over 1 ft.

\*Add \$.01 to list price for each additional inch in length over 1 foot.

# WICO ELECTRIC COMPANY, WEST SPRINGFIELD, MASSACHUSETTS, U. S. A.

Part No.	Name	List Price	Part No.	Name	List Price
18-X893F	Drive Pin Group (21/4" long)	1.05	X2664	Condenser Assembly (Single shell)	1.45
18-894B	Drive Pin Spring (29/32" long)	.05	X2993	Breaker Spring Shunt Lead Group (Special for Signal Corps)	.15
18-894C	Drive Pin Spring (1/2" long)	.05			
18-894D	Drive Pin Spring (3/8" long)	.05			
**18-X896	Magneto Ground Lead Group (12" of wire)	.20			
1014	Core Screw (long)	.10			
1015	Core Screw (short)	.10			
1039	Core Screw (for Nelson Bros.)	.15			
1088	Drive Pin Spring Washer	.05			
2274	Magnet (use 2580)				
X2394	Condenser Assem. (Special for Signal Corps)	1.65			
2580	Magnet (16% Cobalt) (6 per magneto for Specs. 894 and 968)	1.75			

## COMPLETE UNIT

Type FGB (double coil) ..... 21.70

†Because of variation, specify engine make or magneto number.

\*\*Add \$.05 to list price for each additional ft. of wire over 1 ft.

\*Add \$.01 to list price for each additional inch in length over 1 foot

## FACTORY

# Wico Electric Company

West Springfield, Mass.

### MILWAUKEE, WISCONSIN

R. J. Cory, Sales and Service Engineer  
2169 N. Sherman Blvd.

### TULSA, OKLAHOMA

Harry Lolley, Southwest District Manager  
310 Thompson Bldg.

### LOS ANGELES, CALIFORNIA

V. T. Chevallier, Western District Manager  
1116 S. Hope St.  
Los Angeles, California

### NEW YORK

Wico Electric Company  
38 Pearl St.  
New York, N. Y.

## DISTRIBUTORS SALES AND SERVICE

NOTE: This list includes only central stations. A complete directory of all authorized Wico Service Stations will be supplied on request.

<b>Alabama</b>	Birmingham	Birmingham Electric Battery Co., 25rd St. & Ave. B.	<b>Texas</b>	Amarillo	E. S. Cowie Electric, 700 Van Buren St.
<b>Arizona</b>	Phoenix	Jones Battery & Electric Company, 318 W. Jefferson St.	Dallas	Dallas	Beard & Stone Electric Co., 2101 Bryan at Olive.
<b>California</b>	Los Angeles	Electric Equipment Company, 1611 So. Hope St.	El Paso	El Paso	Randel Battery & Magneto Co., 423 Texas St.
	San Francisco	Auto Electric & Supply Co., 543 Van Ness Ave.	Fort Worth	Fort Worth	Generator Service Company, 1115 Commerce St.
<b>Colorado</b>	Denver	Spitzer Electric Company, 43 W. 9th Ave.	Houston	Houston	Beard & Stone Electric Co., Inc., San Jacinto and Polk Ave.
<b>Florida</b>	Jacksonville	Spencer Elec., Inc., 40 W. Beaver St.	Kilgore	Kilgore	Magneto Sales & Service Co.
	Miami	Electrical Equipment Co., 42 N. W. 4th St.	San Antonio	San Antonio	S. X. Callahan, 419-425 N. Flores St.
	Tampa	Spencer Auto Electric Co., 607 Cass St.	Salt Lake City	Salt Lake City	Frank Edward's Company Motor Equip. Div., 601 S. State St.
<b>Georgia</b>	Atlanta	Auto Electric & Magneto Co., 477 Spring St., N. W.	Richmond	Richmond	Richmond Battery & Ignition Co., 1319 West Broad St.
<b>Idaho</b>	Boise	Oakley Automotive, 1105 Idaho St.	Seattle	Seattle	Pacific Magneto Service, Inc., 2719 First Ave. So.
<b>Illinois</b>	Chicago	Illinois Auto Electric Co., 2101 Indiana Ave.	West Virginia	Charleston	MacFadden Ignition, 108 Broad St.
<b>Indiana</b>	Indianapolis	Gulling Auto Electric Co., 450 N. Capitol Ave.	Wisconsin	Milwaukee	Wisconsin Magneto Co., 918 Broadway.
<b>Kansas</b>	Wichita	E. S. Cowie Electric Co., 230 S. Topeka Ave.			
<b>Kentucky</b>	Lexington	Kentucky Ignition Co., Rose St. at Vine	<b>Australia</b>	Sydney	Carr & Elliott, Cr. Kent & Market Sts.
	Louisville	Kentucky Ignition, 4th St. at York.			
<b>Louisiana</b>	New Orleans	John M. Walton, 1009 St. Charles St.	<b>Alberta</b>	Calgary	R. Hutton, 131 Eleventh Ave., West.
	Shreveport	Magneto Ignition Service Co., 804 Louisiana Ave.	Edmonton	Edmonton	Smith Battery & Auto Elec.
<b>Maryland</b>	Baltimore	Parks & Hull Automotive Corp., 1033 Cathedral St.	<b>British Columbia</b>	Vancouver	Jeffrey & Jeffrey, Ltd., 775 Homer St.
<b>Massachusetts</b>	Boston	A. & J. Auto Ignition Company, 55 Brighton Ave.	<b>Manitoba</b>	Winnipeg	Beattie Auto Electric Co., Ltd., 176 Fort St.
<b>Michigan</b>	Detroit	Auto Elec. & Service Corp., 90 Selden Ave.	<b>Ontario</b>	Toronto	A. Cross & Co., 45 Elm St.
<b>Minnesota</b>	Minneapolis	Reinhard Bros. Co., Inc.	<b>Quebec</b>	Montreal	International Electric Co., Ltd., 1037 Bleury St.
<b>Missouri</b>	Kansas City	E. S. Cowie Electric Co., 1819 Wyandotte St.	<b>Saskatchewan</b>	Regina	Elec. Motor Service.
	St. Louis	Medart Auto Elec. Co., Inc., 3134 Washington Blvd.			
<b>Montana</b>	Billings	Pasley & Spitzer, 2011 33rd St.	<b>Channel Islands</b>	Guernsey	<b>CHANNEL ISLANDS</b>
<b>Nebraska</b>	Omaha	Carl A. Anderson, Inc., 16th and Jones St.	<b>Cuba</b>	Habana	Auto and Electrical Supply Co., Ltd.
<b>New Jersey</b>	Newark	Henry's Company, 376 High St.			
<b>New Mexico</b>	Albuquerque	Spitzer Electrical Co.	<b>Hawaii</b>	Honolulu, T. H.	<b>HAWAIIAN ISLANDS</b>
<b>New York</b>	Buffalo	Peter Hettrich, 1032 Ellicott St.			Automotive Service Co., So. and Kawaiahao Streets.
	Long Island City	Steiner Bros., Inc., North Blvd. at 34th St.	<b>Mexico</b>	Mexico City	<b>MEXICO</b>
	Troy	Ehrlich Electric Service, 200 Fourth St.			Ananac Machinery Co., SH, Bucareli No. 12.
<b>North Carolina</b>	Charlotte	Carolina Rim & Wheel Co., 306 No. Graham St.	<b>New Zealand</b>	Wellington	<b>NEW ZEALAND</b>
<b>Ohio</b>	Toledo	Electric Power Maintenance Co., 26-30 17th St.			H. E. W. Silver Magneto & Ignition Co., 45/7 Lower Cuba St.
<b>Oklahoma</b>	Oklahoma City	American Electric Ignition Co., 725 N. Broadway	<b>Philippine Is.</b>	Manila	<b>PHILIPPINE ISLANDS</b>
	Tulsa	Magneto Ignition, 701 W. Fifth Ave.			Caro Electrical Service, 110 Padre Faura St.
<b>Oregon</b>	Portland	Magneto Equipment Co., 1111 So. E. Grand Ave.	<b>Porto Rico</b>	San Juan	<b>PORTO RICO</b>
<b>Pennsylvania</b>	Philadelphia	Tri-State Electric Co., 3330 N. Broad St.			Ricardo Davila, P. O. Box 475.
	Pittsburgh	Automotive Ignition Co., 4917 Baum Blvd.	<b>Roumania</b>	Bucaresti	<b>ROUMANIA</b>
	Providence	A & J Auto Ignition, 43 Broadway.			Progressal Mecanic.
<b>Rhode Island</b>	Providence	Magneto & Electric Service.	<b>South Africa</b>	Durban	<b>SOUTH AFRICA</b>
<b>South Carolina</b>	Columbia	Battery & Electric Co., 300-314 Buncombe St.	<b>Orange Free State</b>	Bloemfontein	Messrs. J. M. Moir
	Greenville	R. T. Clapp Co., 401 No. Broadway		Cape Town	Electric Service Station Corp., Ltd., 34 Henry St.
<b>Tennessee</b>	Knoxville	Automotive Electric Service Company, 918 Linden St.		Johannesburg	Motor Units Pty., Ltd., Cor. Bree and Rieckee Streets.
	Memphis				Thos. Barlow & Sons, Ltd., (S. A.)
			<b>Argentina</b>	Buenos Aires	<b>SOUTH AMERICA</b>
					Arnaldo Bonelli, Rauch 1849, Entre Calleo y Corrientes.